

Customer No.:



07278

PATENT TRADEMARK OFFICE

Docket No.: 3153/1G638US3

## DECLARATION AND POWER OF ATTORNEY

(Continuation-In-Part Application)

As a below named inventor, I declare that:

1. The information given herein is true, and I believe that I am the original, first and sole inventor (if only one name is listed below), or a joint inventor (if plural inventors are named below), of the invention entitled:

INTEGRATED ACTIVE FLUX MICROFLUIDIC DEVICES AND METHODS

which is described and claimed in:

☐ the attached specification or

☒ the specification in application

Serial No. 09/875,438,

Filed: June 5, 2001

(for declaration not accompanying application);

2. This application in part discloses and claims new subject matter as well as subject matter disclosed in my earlier-filed application(s)

Serial No. 09/724,548

Filed: November 28, 2000

For: INTEGRATED ACTIVE FLUX MICROFLUIDIC  
DEVICES AND METHODS

3. I acknowledge my duty to disclose information of which I am aware which is material to patentability in accordance with 37 C.F.R. §1.56, including such material information which occurred between the filing date of said earlier application and the filing date of this application.

4. I have reviewed and understand the contents of the specification, including the claims, as amended by any amendment specifically referred to herein.

5. As to the subject matter of this application which is common to said earlier application I do not know and do not believe that the same was ever known or used in the United States of America before my or our invention thereof or patented or described in any printed publication in any country before my or our

invention thereof, or more than one year prior to said earlier application or in public use or on sale in the United States of America more than one year prior to said earlier application; said common subject matter has not been patented or made the subject of an inventor's certificate issued before the date of said earlier application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months prior to said earlier application. As to the subject matter of this application which is common to said earlier application, I hereby claim the priority benefits under 35 U.S.C. 119 of any application(s) for patent or inventor's certificate listed below. All applications for patent or inventor's certificate on this invention filed by me or my legal representatives or assigns prior to the application(s) of which priority is claimed as to the common subject matter are also identified below.

**PRIOR APPLICATION(S), IF ANY, OF WHICH PRIORITY IS CLAIMED**

<u>COUNTRY</u>	<u>APPLICATION NO.</u>	<u>DATE OF FILING</u>
USA	09/724,548	November 28, 2000
USA	60/209,243	June 5, 2000
USA	60/211,309	June 13, 2000
USA	60/249,360	November 16, 2000

**ALL FOREIGN APPLICATIONS, IF ANY, FILED PRIOR  
TO THE APPLICATION(S) OF WHICH PRIORITY IS CLAIMED**

<u>COUNTRY</u>	<u>APPLICATION NO.</u>	<u>DATE OF FILING</u>
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6. As to the new subject matter of the present application which is not common to said earlier application I do not know and do not believe that the same was ever known or used in the United States of America before my or our invention thereof

Docket No. 3153/1G638US3

or patented or described in a printed publication in any country before my or our invention thereof or more than one year prior to the date of this application, or in public use or on sale in the United States of America more than one year prior to the date of the present application, and said matter has not been patented or made the subject of an inventor's certificate in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months prior to the date of this application. As to the new subject matter of the present application which is not common to said earlier application, I hereby claim the priority benefits under 35 U.S.C. 119 of any application(s) for patent or inventor's certificate listed below. All applications for patent or inventor's certificate on this invention filed by me or my legal representatives or assigns prior to the application(s) of which priority is claimed for the new subject matter are also identified below.

**PRIOR APPLICATION(S), IF ANY, OF WHICH PRIORITY IS CLAIMED**

<u>COUNTRY</u>	<u>APPLICATION NO.</u>	<u>DATE OF FILING</u>
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**ALL FOREIGN APPLICATIONS, IF ANY, FILED PRIOR  
TO THE APPLICATION(S) OF WHICH PRIORITY IS CLAIMED**

<u>COUNTRY</u>	<u>APPLICATION NO.</u>	<u>DATE OF FILING</u>
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**POWER OF ATTORNEY:**

As a named inventor, I hereby appoint the following attorney(s) and/or agents(s) to prosecute this application and transact all business in the Patent and Trademark office connected therewith: Gordon D. Coplein #19,165, Michael J. Sweedler #19,937, S. Peter Ludwig #25,351, Paul Fields #20,298, Marc S. Gross #19,614, Joseph B. Lerch #26,936, Melvin C. Garner #26,272, Ethan Horwitz #27,646, Adda C. Gogoris #29,714, Bert J. Lewen #19,407, Henry Sternberg #22,408, Peter C. Schechter #31,662, Robert Schaffer #31,194, Robert C. Sullivan, Jr. #30,499, Ira J. Levy #35,587, Joseph R. Robinson #33,448, Scott G. Lindvall #40,325, Paul F. Fehlner, Ph.D. #35,135, David Leason #36,195

all of the firm of DARBY & DARBY P.C., 805 Third Avenue, New York, NY 10022

Docket No. 3153/1G638US3

SEND CORRESPONDENCE TO:

DARBY & DARBY P.C.  
805 Third Avenue  
New York, NY 10022

DIRECT TELEPHONE CALLS TO:

Samuel S. Woodley, Ph.D.  
212-527-7700

FULL NAME AND RESIDENCE OF INVENTOR 1


LAST NAME: QUAKE FIRST NAME: Stephen MIDDLE NAME: R.  
CITY: San Marino STATE OR FOREIGN COUNTRY: CA COUNTRY OF CITIZENSHIP: USA  
POST OFFICE ADDRESS: 744 Plymouth Road CITY: San Marino STATE OR COUNTRY: CA ZIP CODE: 91108

FULL NAME AND RESIDENCE OF INVENTOR 2

LAST NAME: CHOU FIRST NAME: Hou-Pu MIDDLE NAME:  
CITY: Foster City STATE OR FOREIGN COUNTRY: CA COUNTRY OF CITIZENSHIP: Republic of China  
POST OFFICE ADDRESS: 711 Shell Blvd., #106B CITY: Foster City STATE OR COUNTRY: CA ZIP CODE: 94404


I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 1:

  
STEPHEN R. QUAKE

DATED: 7/11/01

SIGNATURE OF INVENTOR 2:

  
HOU-PU CHOU

DATED: 7/11/2001



2-453/1G638US3  
UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

NOVEMBER 01, 2001

PTAS



\*101832709A\*

DARBY & DARBY P.C.  
SAMUEL S. WOODLEY, PH.D.  
805 THIRD AVENUE, 27TH FLOOR  
NEW YORK, NEW YORK 10022-7513

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/24/2001

REEL/FRAME: 012118/0512  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
QUAKE, STEPHEN R.

DOC DATE: 07/04/2001

ASSIGNOR:  
CHOU, HOU-PU

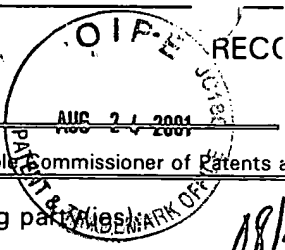
DOC DATE: 07/11/2001

ASSIGNEE:  
CALIFORNIA INSTITUTE OF TECHNOLOGY  
1200 E. CALIFORNIA BLVD.  
PASADENA, CALIFORNIA 91125

SERIAL NUMBER: 09875438  
PATENT NUMBER:

FILING DATE: 06/05/2001  
ISSUE DATE:

LAZENA MARTIN, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



09-04-2001



U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
Docket No.: 3153/1G638US3

To the Honorable Commissioner of Patents & Trademarks

101832709

original documents or copy thereof.

1. Name of conveying party(ies)  
Stephen R. QUAKE; Hou-Pu CHOU  
Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:  
☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other

Execution Date: 7/4/01 - QUAKE; 7/11/01 - CHOU

2. Name and address of receiving party(ies):

Name: California Institute of Technology

Internal Address:

Street Address: 1200 East California Blvd.

City: Pasadena State: CA Zip: 91125

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

Serial No. 09/875,438  
Filed: June 5, 2001

B. Patent No.(s)

EXPRESS MAIL CERTIFICATE  
Date 8/24/01 Label No. EC  
I hereby certify that, on the date indicated above, this paper or fee, was deposited with the U.S. Postal Service & that it was addressed for delivery to the Assistant Commissioner for Patents, Washington, DC 20231 by "Express Mail Post Office to Addressee" service.

A. DiMillo J. DiMillo  
Name (Print) Signature

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Darby & Darby P.C.

Internal Address: Samuel S. Woodley, Ph.D.

Street Address: 805 Third Avenue, 27th Floor

City: New York State: New York Zip: 10022-7513

6. Total number of applications and patents involved:

1

7. Total fee (37 CFR 3.41):.....\$ 40

☒ Enclosed

☐ Authorized to be charged to deposit account

8. Deposit account number:

04-0100

(Attach duplicate copy of this page if paying by deposit account)

09/08/2001 BABRAHA1 00000048 09875438

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40.00 DP

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05 FC:581

40.00 DP

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Samuel S. Woodley, Ph.D. (43,287)  
Name of Person Signing

Samuel S. Woodley  
Signature

August 24, 2001  
Date

Total number of pages including cover sheet, attachments, and document:

3

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231

**ASSIGNMENT**

**Stephen R. QUAKE**, a citizen of the **United States of America**; residing at **744 Plymouth Road, San Marino, CA 91108**; and

**Hou-Pu CHOU**, a citizen of the **Republic of China**; residing at **711 Shell Blvd., #1068, Foster City, CA 94404**;

hereinbelow called "Assignors", have made a certain invention in

**INTEGRATED ACTIVE FLUX MICROFLUIDIC DEVICES AND METHODS**

described in the specification executed by us herewith, which application was filed in the U.S. Patent and Trademark Office on June 5, 2001, under Serial No. 09/875,438; and

WHEREAS, **California Institute of Technology**, a corporation organized and existing under and by virtue of the laws of California, and having offices and doing business at **1200 East California Blvd., Pasadena, California 91125**, and elsewhere, hereinbelow called "Assignee", is desirous of securing the entire right, title and interest in and to the said invention, application and Letters Patent, when granted, and in and to any divisions, continuations, improvements, reissues or extensions that may be made or granted thereon;

NOW, THEREFORE, BE IT KNOWN that for and in consideration of the sum of One Dollar (\$1.00) to us in hand paid by the said Assignee, and other good and valuable consideration, the receipt of all of which is hereby acknowledged, we, the said Assignors have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over unto the said Assignee, its successors and assigns, the entire right, title and interest throughout the world in and to the said invention, application and Letters Patent, when granted, and in and to any divisions, continuations, improvements, reissues or extensions that may be made or granted on any of them;

TO HAVE AND TO HOLD the same to the full end of the term or terms for which said Letters Patent may be granted, as fully and completely as the same might be held by us had this sale and assignment not been made.

For the consideration aforesaid, we hereby covenant and agree to and with the said Assignee, its successors and assigns, that whenever its counsel or representative, or the counsel or representative of its successors or assigns, shall advise that an amendment to, or a division of, or any other proceeding or action in connection with said application or invention, including interference proceedings, is lawful and desirable, or that a reissue or continuation or extension of said Letters Patent is lawful and desirable, we will sign all papers and drawings, take all rightful

oaths and affidavits, and do all acts necessary or required to be done for the procurement of valid Letters Patent for said invention, or for the reissue or continuation or extension of the same, and will do all acts necessary or required to secure to the said Assignee, its successors, and assigns, the title to and full benefit of all rights hereby assigned, without charge to said Assignee or its successors or assigns, but at its or their expense;

AND the Commissioner of Patents and Trademarks is requested to issue the said Letters Patent, when granted, in accordance with this sale and assignment.

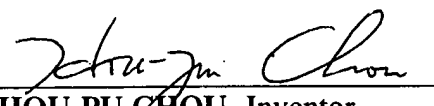
For the consideration aforesaid, we have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto the said Assignee, its successors, and assigns, or the nominees of any of them, the entire right, title and interest in and to any and all Letters Patent for said invention, which may be granted in countries foreign to the United States, and in and to any applications for Letters Patent, which may be filed for said invention in countries foreign to the United States, and in and to the invention described in said applications; and we hereby authorize and empower said Assignee and its successors, assigns or nominees, to apply for Letters Patent or other form of protection on said invention in its own name or in the name of its successors, assigns or nominees, in any or all countries where it may desire to file such application, and where said application may be filed by another than the inventor; and we hereby covenant and agree to sign all papers and drawings, take all rightful oaths, execute all rightful affidavits, and do all acts necessary or required to be done for the procurement and maintenance of Letters Patent or other form of protection for said invention in countries foreign to the United States, and for further investing or confirming the right and title thereto in the Assignee, its successors, assigns or nominees, without charge to said Assignee, its successors, assigns or nominees, but at its or their expense.

We declare under penalty of perjury under the laws of the United States of America that we have signed this document as our own free act and that all of the foregoing is true and correct.

Dated: 7/4/61

  
STEPHEN R. QUAKE, Inventor

Dated: 7/11/2001

  
HOU-PU CHOU, Inventor